DOCUMENT RESUME

ED 094 052 UD 014 401

AUTHOR	Woloshin, Renee
TITLE	Personality and Family Background Correlates of Academic Performance in Minority Students. EBIC/IRCD Urban Disadvantaged Series, Number 37.
INSTITUTION	Columbia Univ., New York, N.Y. EBIC Clearinghouse on the Urban Disadvantaged.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	Jul 74
CONTRACT	OEC-0-9-420088-2327
NOTE	23p.
EDRS PRICE	MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS	*Academic Achievement; Academic Aspiration; Aptitude Tests; *Family Background; *Individual Characteristics; Individual Power; *Minority Group Children; Negro Students; One Parent Family; Parent Influence; *Personality Studies; Predictive Ability (Testing); Research Reviews (Publications); Self Concept; Socioeconomic Status

ABSTRACT

Intellective measures such as aptitude test scores and previous school grades have long been used to predict a student's future academic potential. The information is relatively easy to obtain and has shown high correlations with college grades. Among minority students, however, there is evidence that they often defy what one would predict on the basis of aptitude test scores and past grades. If intellective measures are not significantly related to the academic performance of minority students who generally perform poorly on aptitude tests, perhaps it would be wiser to look at noncognitive areas of behavior. It may be that such factors as self-concept or level of aspiration or parental expectations are more strongly related to minority student achievement than aptitude test scores. In this document, studies which have examined the relationship of various nonintellective variables to the academic performance of minority populations are reviewed. The nonintellective factors fall into two broad categories: personality traits and family characteristics. It is found to be difficult to draw any definite conclusions regarding such relationships for several reasons. First of all, not enough research has been done. Secondly, much of the research that has been done is marred by methodological limitations. (Author/JM)

BEST COPY AVAILABLE

ED 094052

ERIC/IRCD URBAN DISADVANTAGED SERIES

Number 37, July 1974

PERSONALITY AND FAMILY BACKGROUND CORRELATES OF ACADEMIC PERFORMANCE IN MINORITY STUDENTS: A REVIEW OF RESEARCH

Renée Woloshin, M.A.
Research Assistant

ERIC INFORMATION RETRIEVAL CENTER ON THE DISADVANTAGED
Institute for Urban and Minority Education, Teachers College, Columbia University
New York, New York 10027

U.D 014 401

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

This paper is one in the ERIC/IRCD Urban Disadvantaged Series produced by the ERIC Information Retrieval Center on the Disadvantaged under Contract OEC-0-9-420088-2327 between the National Institute of Education (DHEW) and Teachers College, Columbia University. It has been assigned the ERIC/IRCD accession number UD 014 401 and is available without cost from ERIC/IRCD during the period immediately following publication. Thereafter, it can be obtained from:

ERIC Document Reproduction Service (EDRS)
Computer Microfilm International, Corp.
P. O. Box 190
Arlington, Virginia 22210

In ordering from EDRS, use the document's assigned ED number. The paper will be abstracted in a monthly issue and announced in the semi-annual and annual indexes of Research in Education (RIE). Its ED ordering number will be listed in these indexes or can be obtained by writing to ERIC/IRCD.

The material in this publication was prepared pursuant to a contract with the National Institute of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional matters. Prior to publication, the manuscript was submitted to the Center for Policy Research, New York, New York, for critical review and determination of professional competence. This publication has met such standards. Points of view or opinions, however, do not necessarily represent the official view or opinions of either the Center for Policy Research or the National Institute of Education.

BEST COPY AVAILABLE

Intellective measures such as aptitude test scores and previous school grades have long been used to predict a student's future academic potential. College admissions officers rely heavily on these intellective criteria in deciding whom to admit to institutions of higher education and whom to exclude. The information is relatively easy to obtain and has shown high correlations with college grades (Cronbach, 1949; Henry, 1950; Frick and Kenner, 1956; Henderson, 1956; Swensen, 1957; Klugh and Bierly, 1959). Among minority students, however, there is evidence that they often defy what one would predict on the basis of aptitude test scores and past grades. A study by Green and Farquhar (1965) found no correlation of verbal aptitude as measured by the School and College Ability Test and the Differential Aptitude Test to the high school grades of black males, although verbal aptitude did correlate with high school achievement for white students. Other studies similarly found that while high school grades and SAT scores are valid predictors of college grades for whites, they are not valid for blacks (Thomas and Stanley, 1969; Miller and O'Connor, 1969; Temp, 1971).

If intellective measures are not significantly related to the academic performance of minority students who generally perform poorly on aptitude tests, perhaps it would be wiser to look at noncognitive areas of behavior. It may be that such factors as self-concept, or level of aspiration, or parental expectations are more strongly related to minority student achievement than aptitude test scores. In the following pages, studies which have examined the relationship

of various nonintellective variables to the academic performance of minority populations are reviewed. The nonintellective factors fall into two broad categories: personality traits and family characteristics.

Among the personality factors studied, the cluster of variables referred to as achievement motivation, need for achievement (n Ach), or need for academic achievement have received the attention of several investigations. Cameron (1968) studied the relationship of achievement motivation, as measured by two sub-tests of the Michigan M-Scales (Word Rating List and Human Trait Inventory), to the grade point average of black college women. The Word Rating List was found to be significantly related to grades, while the Human Trait Inventory was not. However, the best single predictor of achievement was found to be scores on the School and College Ability Test (SCAT) which showed a correlation of .57 with grades. When SCAT scores were combined with the two M-Scales, the correlation increased (.59), though not significantly. Thus, while the achievement motivation measures correlated significantly with grades, they did not contribute significantly to a multiple regression equation designed to predict achievement. On the college level, no studies were found which explored the relationship between achievement motivation and academic performance in male students.

At the high school level, Green and Farquhar (1965) investigated the relationship of the Michigan M-Scales to grade point average in academic subjects for both male and female students. All four of the

sub-tests of the M-Scales as well as two aptitude measures (SCAT and Verbal Reasoning Scope of the Differential Aptitude Test) were used as predictors. The authors found no correlation between verbal aptitude and academic achievement for black males, though a significant correlation was obtained for the black females. All of the sub-tests of the M-Scales except the Human Trait Inventory correlated significantly with the grade point average of both sexes.

Epps (1969) investigated the relationship of several other measures of achievement motivation to the high school grades of black students. The motivation measures were: (1) a projective measure of n Ach (the McClelland scoring technique was used with verbal descriptions of situations rather than pictures), (2) a self-report measure of achievement motivation, and (3) an achievement attitudes scale. Small though statistically significant correlations were found between each of the three measures of achievement motivation and academic performance of both males and females. It was noted that none of these achievement measures was correlated with each other. Ability was controlled in this investigation.

Another study on the high school level (Lachica, 1969) used still other techniques to measure the relationship of achievement motivation to academic achievement. Male and female participants in a special college discovery and development program for underachieving, low socioeconomic status, high school students were given the Stern Activities Index. The Motivation factor of the Activities Index tended to be positively associated with the following measures of

academic achievement: grade point average, English final grade, and Regents scores in biology and geometry. The Verbal Reasoning and Numberical Ability scores of the Differential Aptitude Test were obtained to control for aptitude.

On the elementary school level, a study of lower-class black fifth graders (Solomon, Houlihan, Busse, and Parelius, 1971), found need for achievement (n Ach) to be positively and significantly related to general academic achievement for girls, but not for boys. It is not known whether ability was controlled in this study.

Although the different studies reviewed generally support a positive correlation between various measures of achievement motivation and minority academic performance, no definite conclusion can be reached concerning the relationship of achievement motivation to performance. One cannot generalize from one study to another because the different investigations have used different definitions and different measurements of academic motivation. As demonstrated in the Epps (1969) study, the different measures of achievement motivation are not always related to each other and, therefore, are not really measuring the same thing. More research in which consistent theoretical and operational definitions of the independent variables in question would be needed in order to establish whether or not a relationship exists between a measure of achievement motivation and a measure of academic performance in minority students. Sex differences in this area need to be explored and studies must insure that proper control for the influence of aptitude has been maintained.

Aspects of the self such as self-concept, self-image, self-esteem and self-concept of ability have been studied as correlates of academic behavior in minority students. Cameron (1968), cited above, found self-concept to be positively associated with the academic achievement of black college women. Measuring both cognitive and noncognitive factors, Green and Farquhar (1965), as mentioned previously, found the Self-Concept Word Rating List to be the best single predictor of high school grade point average for a black sample. A study by Georgi (1972) found that the Maryland Self-Concept as a Learner Scale and the Brookover Self-Concept of Ability Scale were significantly related to the grade point averages of black high school students, both male and female. However, these two self-concept measures also correlated with IQ. Evidence for a relationship between (1) self-concept and achievement, and (2) self-concept of ability and achievement was found by Joyce (1970) who studied lower status ninth graders. Epps (1969) compared a measure of general self-esteem with self-concept of ability as measured by the Brookover scale to determine which was more strongly related to the grades of black high school students. He found that general self-esteem was much less effective in predicting grades than self-concept of ability.

On the elementary school level, Davidson and Greenberg (1967) found that among a number of cognitive and noncognitive variables, the factor most highly related to the achievement status of black, lower class fifth graders was "positive self and projected image." A study of black sixth graders (Frerichs, 1971) found that self-esteem was significantly related to grades.

In all of these self-concept studies reviewed, ability was controlled. It seems reasonable to conclude from the research that minority students who express a positive self-regard in general and a positive feeling about their ability to perform in school actually show higher levels of performance than those who see themselves and their abilities in a negative light. Because the studies are correlational, however, one cannot say whether a positive self-image is the cause of higher achievement or whether it is a result of it. Further research into the direction of the relationship between self-concept and minority achievement would clarify the cause and the effect.

Another personality variable which has been studied as it relates to the academic achievement of minority groups is internal versus external control of reinforcement. As formulated by Rotter (1966), people who believe that rewards are contingent on their own behavior are "internal" while those who believe that rewards are determined by fate, luck or chance are "external." Research has generally found that for whites internal control is associated with higher levels of achievement than external control while the opposite is true for blacks. Gurin, Gurin, Lao, and Beattie (1969) studied locus of control in black populations and concluded that the reason high achieving blacks score "external" is because, for the black individual in American society, opportunities and rewards do in fact largely depend on external forces. Such factors as lack of opportunity and racial discrimination are stronger influences on the black person's

outcomes than his own behavior. The black who blamed himself for unfavorable outcomes which were caused, in actuality, by factors over which he had no control would be classified as "internal" under Rotter's scheme. Yet, such a person would, as a consequence of his self-blame, feel quite powerless and inadequate. Gurin et al., in examining Rotter's Internal-External Control Scale, found that there were two very different types of items: those referring to personal control and those referring to ideological control. "Personal control" items measured whether the individual believed he could control what happens in his own life while "ideological control" items measured the individual's beliefs about what determines outcomes in the society in which we live. When these two types of items were scored separately, it was found that high achieving blacks scored as "internals" in personal control and as "externals" in ideological control. In contrast, low achieving blacks scored "external" in personal control and "internal" in ideological control. The high achievers were thus blaming the system for such ideological events as racial discrimination while the low achievers were blaming themselves. In situations which were more personal, the high achievers accepted responsibility for outcomes while the low achievers did not.

Further evidence can be found supporting a relationship between personal control and minority achievement. Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, and York (1966) found that of some 100 variables measured in their survey, the best single predictor of minority students' academic achievement was a sense of personal control

over the environment. Epps (1969) administered the Personal Control scale used by Coleman et al.to a group of black high school students and found that measure to be a more effective correlate of grades than measures of locus of control based on the work of Rotter.

The evidence, while not extensive, consistently supports a positive relationship between a sense of personal control over outcomes and academic performance in lower status populations. More research is needed to confirm the relationship.

A variety of other personality factors have been studied as correlates of academic achievement, but not enough research exists on any one of them to warrant generalization. One study (Atchison, 1968) found that general anxiety, as measured by the Taylor Manifest Anxiety Scale, was positively and significantly related to the grade point average and IQ of black college students. However, because anxiety was not found to be independent of IQ level, the relationship found may have been due to ability rather than anxiety. No studies were found measuring the relationship between a specific type of anxiety, test anxiety, and academic performance. Level of aspiration in a group of ninth grade black boys was studied by Sabota (1969). She reported a significant relationship between level of aspiration and academic achievement; however, there was no control for ability. Miller and O'Connor (1969), in a study of black college students, found scores on Fricke's Achiever Personality Scale to be significantly and positively related to the grades of women and low ability men. The Achiever Personality Scale was independent of SAT scores for both

men and women. A study of the attitudes of black, low status fourth graders toward school (Greenberg, Gerner, Chall and Davidson, 1965) showed, surprisingly, that poor achievers expressed more favorable attitudes toward school and authority concepts, while good achievers were more critical. It was suggested by the authors that the poor achievers' attitudes were reflective of their greater defensive needs.

A few studies have used multiple variables in predicting the academic performance of minority students. In these studies, a number of personality factors are assessed in order to determine which factors and which combinations of factors are effective predictors of achievement. A study of socioeconomically deprived tenth grade students (Lachica, 1969) found the following personality factors to be positively associated with academic performance, independent of ability: motivation, intellectual interests, closeness, orderliness, intellectual orientation, dependency needs and educability. Factors found negatively associated with achievement were: self-assertion, expressiveness-constraint, friendliness, sensuousness, submissiveness, egoism-diffidence, and the emotional expression dimension. Benjamin (1970) administered the California Psychological Inventory (CPI), Mooney Problems Check List, and Kuder Preference Record to a group of high achieving and low achieving black high school students. The findings were that academically successful males had a significantly higher mean score than the unsuccessful males on the following six CPI scales: responsibility, socialization, communality, achievement via conformance, intellectual efficiency, and sense of well being.

The successful females had higher means than the unsuccessful females on the first four scales mentioned above. A differentiation between the academic groups on the Mooney Problems Check List was found on only one of its eleven areas, Personal-Psychological Relations, and this for the male students only. The Kuder showed significant differences between the two male groups on the V-scale and on the Computational and Scientific areas. The female groups differed significantly on the V-scale and on the Outdoor and Social Service areas. No control for ability was mentioned in the report of this investigation.

Although it is not possible to make any general statement with respect to the efficiency of specific multiple predictors of academic performance because not enough information exists on any of the variety of dimensions measured, it seems that multiple techniques are the most logical approach to the problem. Since academic performance is not determined by any single variable, but by the interaction of a number of variables, multiple measures can be useful in providing information not only about traits which are associated with achievement, but also about the patterns of traits that may be associated with achievement. The method would give us a picture of the relative importance of a number of different traits being assessed simultaneously.

The second category of nonintellective correlates of minority student achievement includes family and background characteristics. It is generally believed that low achievers come from deprived environments where parental aspirations are low and the child does not

have effective adult role models to emulate. A high rate of fatherless households among minority families is thought to be especially detrimental to the achievement of boys. There is some evidence in the literature to support these views, but the findings are far from conclusive.

Investigations of the relationship between intactness of the home and academic achievement have resulted in some contradictory findings. Nichols and Roberts (1966), studying black nominees, finalists, and winners in the 1964 National Achievement Scholarship Program, found that the nominated students more frequently came from intact families than did members of the non-nominated, non-white populations of the same age and that those selected as finalists and winners more frequently came from intact families than those not selected. In another study (Rockwell, 1972), it was reported that disadvantaged children coming from intact homes passed a grade level in school more often than those coming from broken homes.

Other studies report, however, that intactness of the home is not significantly related to the academic performance of the minority student. Webb (1973) found that among a group of 96 black male and female college students, the high and low achievers could not be differentiated on the basis of the absence or presence of the father in the home. Epps (1969) studied the relationship of a number of family background variables to the academic achievement of male and female blacks in both northern and southern high schools. Father absence was found to be unrelated to the performance of the boys and

southern girls but significantly related to the performance of northern girls. On the elementary school level, Lloyd (1972) reported that in a sample of black sixth graders, marital status of the parents was not significantly related to reading achievement. Several other studies of black elementary students similarly reported that father absence showed no significant relation to level of scholastic achievement (Solomon et al., 1972; Coleman et al., 1966; Wasserman, 1972; Henderson and Long, 1971).

In sum, it seems that the weight of evidence contradicts the notion that minority students from broken homes demonstrate lower levels of achievement than students from intact families. This seems logical if one considers the fact that the quality of the home experience is more important than the number of parents present. A child whose parents live together but do not get along or do not give him sufficient attention is worse off than the child who has one parent who is loving and caring. A failure to control for the quality of the relationship between parent and child in the research reported may partially explain the contradictions found. There are also other limitations in these studies. The age of the child at the time of the break-up of the home may be a crucial factor. If the child is older and his pattern of achievement is fairly well-established, a disruption in the home may not upset that pattern as easily as it could for the younger, more vulnerable child. Besides a failure to mention the age of the child at the time of parental separation, the studies do not specify the length of the time the home has been broken.

Perhaps children who have been without a father for several years have learned to adjust. Their achievement may be higher than that of children who have recently experienced a disruption in their home life. Finally, the research does not report whether the child who lives in a broken home has some father or mother surrogate. Often, a grandparent, aunt or uncle, sister or brother may serve as a replacement for the lost parent. More research in this area is needed to clarify these issues before one can comment definitively on the relationship of intactness of the home to minority student achievement.

Another home background variable which has been studied as a correlate of minority academic performance is socioeconomic status, as determined by the educational and occupational levels of the parents. The widely held view that low SES is associated with low levels of achievement is not always born out in the literature on minority populations. In a group of black college students, Webb (1973) found that the high and low achieving students could not be distinguished on the basis of their parents occupational and educational levels. However, it may be that the reason SES failed to differentiate the two achievement groups is because the students were not stratified on this variable. It is likely that a sample of black college students would be predominantly middle-class. The study by Nichols and Roberts (1966), previously cited, on the participants in the National Achievement Scholarship Program for Negroes revealed that parents of nominated students had more education than

the parents of the non-nominated, non-white population of students at a similar age.

The findings on younger samples of students have also been inconsistent. Lloyd (1972), studying black sixth graders, found that neither educational level of the father or the mother was significantly related to reading achievement for males and females. However, among high IQ females, there was a significant relationship between father's and mother's educational level and reading achievement. No significant relationship between occupational level of father and reading achievement was found, except in the case of the high IQ females where again a significant relationship was noted. Wasserman (1972) reported that educational level of the mother was not related to the school grades of a group of black boys ranging in grades from three to ten.

On the other hand, three studies confirm the view that there is an association between socioeconomic status and achievement. Rockwell (1972) reported that educational level of the mother was significantly related to the passing or failure of a grade level in a group of disadvantaged children. In a study of high and low achieving fifth grade blacks, all of whom were lower class, Greenberg and Davidson (1972) found that parents of high achievers had a significantly better average occupational level and average educational level than parents of low achievers. Finally, Henderson and Long (1971) studied a group of black first grade children designated as "repeaters," "promoted non-readers," and "readers." They divided the children into a "higher"

or "lower" class on the basis of father's occupation. It was found that the promoted non-readers group had the highest percentage of "lower" class children, significantly more than the readers.

Although socioeconomic status may be a good predictor of achievement in the general population, it may not differentiate high and low achievers in a population composed of low status minority students. Since many of the members of this population are in the lower or lower-middle class, there is not enough variation in SES to make that variable a viable predictor

Other variables which fall under the category of family characteristics are parental attitudes and behavior. There have been a number of studies which have examined the relationship of parental values, expectations, and behaviors to the academic performance of students from minority backgrounds. According to the study by Epps (1969), the most significant family background variable for academic achievement in black high school students is parental satisfaction with grades. Parental support or nurturance was also found to be significantly related to grades while other factors such as mother's personality characteristics, independence training, and parental influence were not. The relationship of parents' educational aspirations to the scholastic performance of black children in grades two through eleven was examined by Greene (1973). He found parental aspirations to be significantly related to the achievement of the seventh, ninth, and eleventh graders in all areas except reading comprehension.

A very extensive study of the relationship of various maternal characteristics to the cognitive performance of urban, black preschool children was conducted by Hess et al. (1969). They examined maternal attitudes toward education, maternal expectations about the child's behavior, and mother's use of language to convey and expand ideas. Mother and child were also observed in two types of structured interactions: in the first, mother taught child a task she had just learned, and in the second, the pair was asked to cooperate in performing another task. The results indicated that mother's strategies for controlling the child, mother's teaching styles in the experimental situation, and maternal language were all significantly related to the preschool child's reading readiness test scores. Mothers of children who did well on the reading readiness tests tended to use personal-subjective control strategies, while lower scores in reading readiness were associated with maternal use of imperative and status-normative control strategies. Children who did well in the reading readiness tests were likely to have mothers whose teaching was specific, informative, and engaging. Mothers of children who did poorly in reading readiness were less specific in giving directions and feedback, failed to orient the child to his task, less likely to elicit attention and to give praise, but more likely to demand physical actions without explaining precisely how or why. There was a positive relation between mother's language facility and her child's level of reading readiness.

Not enough research exists on any particular parental charac-

teristic or combination of characteristics to warrant generalization. There is some indication that different parental factors are important at different stages of the child's development. More developmental studies examining which parental characteristics are related to student achievement at different grade levels from preschool through college are needed.

In sum, it is difficult to draw any definite conclusions regarding the relationship of various nonintellective factors to the academic performance of minority populations for several reasons. First of all, not enough research has been done. On any given variable, only a handful of studies has been conducted. Many more studies are needed to confirm relationships found in one or two previous investigations. Secondly, of the research that has been done, much of it is marred by methodological limitations. A number of studies failed to control for aptitude and sex. Often differences in academic achievement attributed to differences in a particular personality or family background variable may be accounted for simply on the basis of variation in the ability of the high and low achieving subjects. Also, many variables operate differently in males and females; the same factor that facilitates achievement in women may inhibit achievement in men. Therefore, not only is more research needed, but research of high quality in which the appropriate variables have been controlled. Finally, the various nonintellective variables under investigation need to be clearly defined and valid techniques for measuring these variables need to be developed.

Yet, although the evidence is not strong, it does point toward an association between several noncognitive factors and academic achievement in minority students. These relationships need to be investigated further. In particular, the evidence supporting a relationship between the following variables and academic performance needs corroboration: need for achievement, self-concept, locus of control, anxiety, parental expectations, and parental support.

In addition, certain other noncognitive variables which have not received much attention in the research on minority academic performance ought to be studied. Factors such as academic expectations, level of academic aspiration, and the ability to delay gratification are some other possible correlates of academic achievement in minority students which merit investigation. Studies using combinations of variables as multiple predictors of achievement may result in a more accurate prediction of minority academic outcomes. In addition, such investigations could be useful in identifying the characteristics of the successful versus the unsuccessful student so that special programs could be designed for the student whose personality and background characteristics indicate that he may need special help to succeed in school.

BIBLIOGRAPHY

Atchison, C.O. Relationships between some intellectual and non-intellectual factors of high anxiety and low anxiety Negro college students, Journal of Negro Education, 1968, 37(2), 174-178.

Benjamin, J.A. A study of the social psychological factors related to the academic success of Negro high school students, Dissertation Abstracts International, 1970, 30(8-A), 3543.

Cameron, H.K. Nonintellectual correlates of academic achievement, Journal of Negro Education, 1968(Sum), 37(3), 252-257.

Coleman, J.S., Campbell, E.Q., Hobson, C.J., McPartland, J., Mood, A.M., Weinfeld, F.D., and York, R.L. Equality of Educational Opportunity, Wash., D.C.: U.S. Government Printing Office, 1966.

Cronbach, L.J. Essentials of Psychological Testing, New York: Harper and Row, 1949.

Epps, E.G. Family and achievement: A study of the relation of family background to achievement orientation and performance among urban Negro high school students, Final Report, U.S. Office of Education, February, 1969.

Frerichs, A.H. Relationship of self-esteem of the disadvantaged to school success, Journal of Negro Education, 1971, 40(2), 117-120.

Frick, J.W. and Kenner, H.E. A validation of the prediction of college achievement, Journal of Applied Psychology, 1956, 40, 251-252.

Goergi, N.J. The relationship of self-concept in high school Negro students in Muncie, Indiana to intelligence, achievement, and grade point average, Dissertation Abstracts International, 1972, 32(8-A), 4418.

Green, R.L. and Farquhar, W. Negro academic motivation and scholastic achievement, Journal of Educational Psychology, 1965, 241-243.

Greenberg, J.W. and Davidson, H.H. Home background and school achievement of black urban ghetto children, American Journal of Orthopsychiatry, 1972, 42(5), 803-810.

Greenberg, J.W., Gerner, J.M., Chall, J. and Davidson, H.H. Attitudes of children from a deprived environment toward achievement-related concepts, Journal of Educational Research, 1965, 59(2), 57-62.

Greene, M.A. A longitudinal study of the effects of black parents' aspirations on the academic achievement of their children, Dissertation Abstracts International, 1973, 33(12-A), 6754.

Gurin, P., Gurin, G., Lao, R.C., and Beattie, M. Internal-external control in the motivational dynamics of Negro youth, Journal of Social Issues, 1969, 25, 29-53.

Henderson, H.L. Prediction of academic success, Psychological Reports, 1956, 2, 321-322.

Henderson, E.H. and Long, B.H. Personal-social correlates of academic success among disadvantaged school beginners, Journal of School Psychology, 1971, 9(2), 101-113.

Henry, E.R. Predicting success in college and university, in Fryer, D.H. and Henry, E.R. (eds.), Handbook of Applied Psychology, New York: Rinehart and Co., 1950, 449-453.

Hess, R.D., Shipman, V.C., Brophy, J.E., and Bear, R.M. The cognitive environments of urban preschool children: Follow-up, Graduate School of Education, University of Chicago, Chicago, Illinois, 1969 (ED 039 270).

Joyce, J.F. An investigation of some personality characteristics of achieving high school students from lower socioeconomic environments, Dissertation Abstracts International, 1970, 31(4-A), 1623.

Klugh, H.E. and Bierley, R. The School and College Ability Test and high school grades as predictors of college achievement, Educational and Psychological Measurement, 1959, 19, 625-626.

Lachica, G.M. The relationship between factors of personality and academic achievement of selected groups of tenth grade students, Dissertation Abstracts International, 1969, 30(4-A), 1435.

Lloyd, D.N. Reading achievement and its relationship to academic performance, part three: Relationships of Family Background and third grade performance to sixth grade reading achievement, Laboratory Paper #29 and Supplemental Data on High and Low IQ and SES in Four Race-by-Sex Samples, National Institute of Mental Health, Rockville, Md., 1972, (ED 064 704).

Miller, D.M. and O'Connor, P. Achiever personality and academic success among disadvantaged college students, Journal of Social Issues, 1969, 25, 103-116.

Nichols, R.C. and Roberts, R.J. Participants in the National Achievement Scholarship Program for Negroes, National Merit Scholarship Corp., Evanston, Ill., 1966 (ED 011 527).

Rockwell, R.E. An investigation of the relationship of nine noninter-venion variables to the school success or future of culturally disadvantaged children, Dissertation Abstracts International, 1972, 33(6-A), 2793.

Rotter, J.E. Generalized expectancies for internal versus external control of reinforcement, Psychological Monographs: General and Applied, 1966, 80(1, Whole No. 609).

Sabota, C.M. The relationship between selected social and personal characteristics and academic achievement among male Negro adolescents, Dissertation Abstracts International, 1969, 30(3-A), 1029.

Solomon, D., Wirsch, E., Scheinfeld, D.R., and Jackson, J.C. Family characteristics and elementary school achievement in an urban ghetto, Journal of Consulting and Clinical Psychology, 1972, 39(3), 452-466.

Solomon, D., Houlihan, K.A., Busse, T.V., and Parelius, R.J. Parent behavior and child academic achievement, achievement striving, and related personality characteristics, Genetic Psychology Monographs, 1971, 83(2), 173-273.

Swensen, C.H.,Jr. College performance of students with high and low high school grades when academic aptitude is controlled, Journal of Educational Research, 1957, 50, 597-603.

Temp, G. Validity of the SAT for blacks and whites in thirteen integrated institutions, Journal of Educational Measurement, 1971, 8, 245-251.

Thomas, C.L. and Stanley, J.C. Effectiveness of high school grades for predicting college grades of black students: A review and discussion, Journal of Educational Measurement, 1969, 6, 203-215.

Wasserman, H.L. A comparative study of school performance among boys from broken and intact families, Journal of Negro Education, 1972, 41(2), 137-141.

Webb, K.N. An exploratory study of black students' self-report of their views about academic success and failure, Dissertation Abstracts International, 1973, 33(7-A), 3170.